

Figure 1

SEQ ID No.:I	GTAAGCC CTCAGAACCGTCTCGGAA (→)	
	CAACCCAGGAGGACTGGGTGAACAAAGCCGGAAGTGA TCCAT <u>GTAAGCC</u> CTCAGAACCGTCTCGGAAAGGAGGCCACATGTGTAACTTCAAAG	T.....
AF196835	C.....	
AF260968	
AF260969	
AF481864	
M12294	
AF206518	
AF317203	
AF202541	
AF404757	T.....
AF404753	
AF404754	
AF404755	
AF404756	
AF017254	
L48977	C.....
AF196536	C.....
AF196537	T.....
AF196538	T.....
AF196540	T.....
AF196541	T.....
AF196542	T.....
AF196543	T.....
AF297840	T.....
AF458343	T.....
AF458344	T.....
AF458347	T.....
AF458348	T.....
AF458350	T.....
AF458352	T.....
AF458353	T.....
AF458355	T.....
AF458358	T.....
AF458360	T.....
AF458361	C.....
AF208017	C.....
AF196539	C.....
AF196535	C.....
AF458359	C.....
AF458357	C.....
AF458354	C.....

AF458349 C. C. T. G. C. G. C. T. G. C.
AF458345 C. C. T. G. C. G. C. T. G. C.
AF458346 C. C. T. G. C. G. C. T. G. CC
AF533540 C. C. T. G. C. T. T. T. T.
AY187012 G.
AY187013 G.
AY187014 G.
AY187015 G.
AY262283 AT. T. AT. G. C. AT. T. C. G. G.
AY277251 A.
AY277252 A.
AY278441 T.
AY278442 T.
AY268132 T.
AY268133 T.
AY490240 T.

KunJin
D00246 T.
AY274504 T.
AY274505 T.
L49311 T. G.
L48978 T. C.
L48979 T. C. A.
AF297840 T. C. A.
AF297841 T. A. A.
AF297842 T. A. A.
AF297843 T. A. A.
AF297844 T. A. A.
AF297845 T. C. A.
AF297846 T. C. A.
AF297847 T. C. A.
AF297848 T. C. A.
AF297849 T. C. A.
AF297850 T. C. GTA. G. G. G. AG. GC
AF297851 T. C. A. A. G. G.
AF297852 T. C. A. A. G. G.
AF297853 T. C. A. A. G. GA
AF297854 T. C. A. A. G. G.
AF297855 T. C. A. A. G. G.
AF297856 T. C. A. A. G. G.
AF297857 G. A. CCT. GA. G.
AF297858 T. A. A. G. G.
AF297859 T. A. A. G. G.

AF458351	.....	T	.....	G	A	.....	G	.....
AF458356	.....	T	.....	C	.....	A	.....	G
L24512	.....	T	.....	.....	A	.....	.....	G
JEV	.....	.....	.....	.....	.....	.....	.....	.....
AB051292	...GTT	.....	T	T.AC	CG	AGGTGG	A	.....
AF014160	...GT	.....	T	T.AC	TA	AGGTGA	A	.....
AF014161	...GT	.....	T	T.AC	TA	AGGTGA	A	.....
AF045551	...GTT	.....	T	T.AC	CG	AGGTGG	A	.....
AF069076	...GT	.....	T	T.AC	CA	AGGTGA	A	.....
AF075723	...GT	C	.....	T	T.AC	CA	GAGTGA	A
AF080251	...GT	.....	T	T.AC	CA	AGGTGA	A	.....
AF098735	...GT	.....	T	T.AC	CA	AGGTGA	A	.....
AF098736	...GT	.....	T	T.AC	CA	AGGTGA	A	.....
AF098737	...GT	.....	T	T.AC	CA	AGGTGA	A	.....
AF217620	...GTT	.....	T	T.AC	CA	AGGTGA	A	.....
AF221499	...GT	.....	T	T.AC	CA	AGGTGA	A	.....
AF221500	...GT	.....	T	T.AC	CA	AGGTGA	A	.....
AF254452	...GT	.....	T	T.AC	CA	AGGTGA	A	.....
AF254453	...GT	A	.....	T	T.AC	CA	AGGTGA	A
AF315119	...GT	.....	T	T.AC	CA	AGGTGA	A	.....
AF416457	...GT	.....	T	T.AC	CA	AGGTGA	A	.....
AF486638	...GT	.....	T	T.AC	CA	AGGTGA	A	.....
U14163	...GT	.....	T	T.AC	CA	AGGTGA	A	.....
U15763	...GT	.....	T	T.AC	CA	AGGTGA	A	.....
L48961	...GT	.....	T	T.AC	CG	AGGTGA	A	.....
U47032	...GT	.....	T	T.AC	CA	AGGTGA	A	.....
M18370	...GT	.....	T	T.AC	CA	AGGTGA	A	.....
M55506	...GT	.....	T	T.AC	CA	AGGTGA	A	.....
D90195	...GT	.....	T	T.AC	CA	AGGTGA	A	.....
D90194	...GT	.....	T	T.AC	CA	AGGTGA	A	.....
AF311748	...GT	.....	T	T.AC	CA	AGGTGA	A	.....
AF092550	...GTT	.....	T	T.AC	CA	AGGTGA	A	.....
AF092552	...GTT	.....	T	T.AC	CA	AGGTGA	A	.....
AF092553	...GTT	.....	T	T.AC	CA	AGGTGA	A	.....
AF139531	...GTT	.....	T	T.AC	CA	AGGTGA	A	.....
AF148900	...GTT	.....	T	T.AC	CA	AGGTGA	A	.....
AF148901	...GTT	.....	T	T.AC	CA	AGGTGA	A	.....
AF148902	...GTT	.....	T	T.AC	CA	AGGTGA	A	.....
AF218068	...GTT	.....	T	T.AC	CA	AGGTGA	A	.....
AF289816	...GT	.....	T	T.AC	CG	AGGTGG	A	.....
AF318291	...GT	.....	T	T.AC	CG	AGGTGG	A	.....
L48967	...GTT	.....	T	T.AC	CA	AGGTGA	A	.....
L48968	...GTT	.....	T	T.AC	CA	AGGTGA	A	.....
		.....	T	T.AC	CA	AGGTGA	A	C

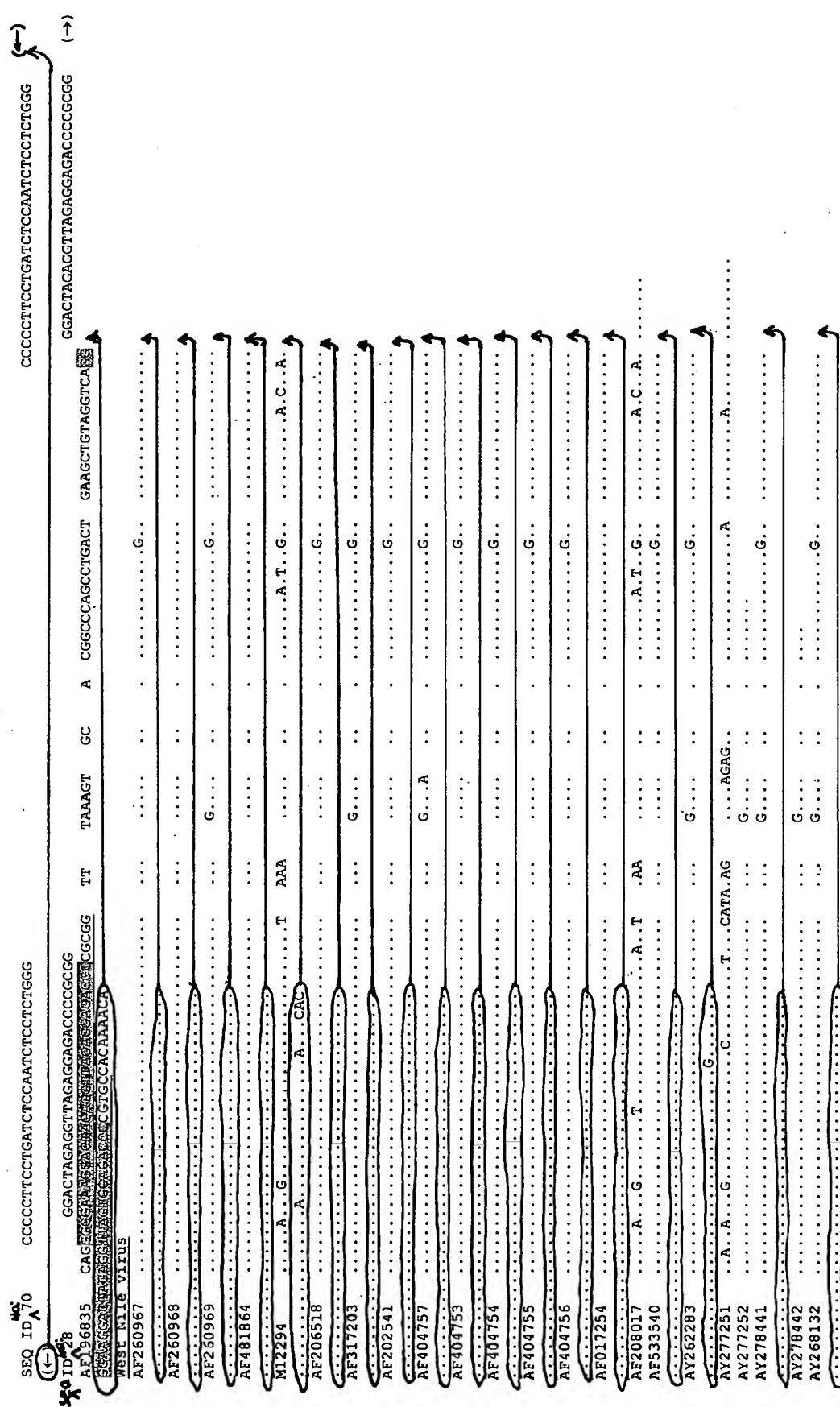
AY184212	..GT.	..C.	..T.T.AC..CG..GAGTGA.A..	A..A..T..TG..TCAC..G..TG..GG..
AY251616	..GT.	..T.	..T.T.AC..CG..AGGTGG.A..	T..T..TG..TCAC.C.G..G..G..
AY278556	..GTT	..T.	..T.T.AC..CG..AGGTGG.A..	C..T..TG..TCAC.C.G..G..G..
AY316157	..GTT	..T.	..T.T.AC..CG..AGGTGG.A..	C..T..TG..TCAC.C.G..G..G..
L54067	..GTT	..T.	..T.T.AC..CA..AGGTGA.A..	T..T..TG..TCAC.C.G..G..GG..
L54068	..GTT	..T.	..T.T.AC..CA..AGGTGA.A..	T..T..TG..TCAC.C.G..G..GG..
L54069	..GTT	..T.	..T.T.AC..CA..AGGTGA.A..	T..T..TG..TCAC.C.G..G..GG..
L54070	..GTT	..T.	..T.T.AC..CA..AGGTGA.A..	T..T..TG..TCAC.C.G..G..GG..
L54071	..GTT	..T.	..T.T.AC..CA..AGGTGA.A..	T..T..TG..TCAC.C.G..G..GG..
L54072	..GTT	..T.	..T.T.AC..CA..AGGTGA.A..	T..T..TG..TCAC.C.G..G..GG..
L54122	..GTT	..T.	..T.T.AC..CA..AGGTGA.A..	T..T..TG..TCAC.C.G..G..GG..
L54123	..GTT	..T.	..T.T.AC..CA..AGGTGA.A..	T..T..TG..TCAC.C.G..G..GG..
AF306514	..GTT	..T.	..TTT.AC..CG..AGGTGG.A..	CTCTCT..TT..TGAC.C.G..G..G..
AF306515	..GT.	..G..	..TTT.AC..CA..AAGTGA.A..	T..T..TT..TGAC..G..G..G..
AF306516	..TT.	..T.	..TTT.AC..CA..AAGTGA.A..	T..T..TT..TGAC..G..G..G..
AF306517	..GT.	..T.	..T.T.AC..CA..AAGTGA.A..	A..T..TT..TGAC..G..G..G..
SLEV				
BFS1750-C	TGG	..T.	..T.T.....AATCT.GCCGAGT GCA..C..	TT..A..G..GTCC..TAGCACGTTAG..CTGGAGAGG.C
1750-Sd	TGG	..T.	..T.T.....AATCT.GCCGAGT GCA..C..	TT..A..G..GTCC..TAGCACGTTAG..CTGGAGAGG.C
TD6-4G-C	TGG	..T.	..T.T.....AATCT.GCCGAGT GCA..C..	TT..A..G..GTCC..TAGCACGTTAG..CTGGAGAGG.C
TD6-4G-20	TGG	..T.	..T.T.....AATCT.GCCGAGT GCA..C..	TT..A..G..GTCC..TAGCACGTTAG..CTGGAGAGG.C
CoaV750	TGG	..T.	..T.C.....AATCT.GCTGAGT GCA..C..	TT..A..G..GTCC..TGGCACGTTAG..CTGGAGAGG.C
L695121.05	TGG	..T.	..T.T.....AATCC..GCTGGGT GCA..C..	TT..A..G..GTCC..TGGCATGTTAG..CTGGAGAGG.C
TNMy71K-C	TGG	..T.	..C.T.....AATCT.GCTGGGT GCA..C..	TT..A..G..GTCC..TGGCACGTTAG..CTGGAGAGG.C
MSI-7-C	TGG	..C..	..T.T.....AATCC..GCTGGGT GCA..C..	TT..A..G..GTCC..TGGCACGTTAG..CTGGAGAGG.C
Kern21	TGG	..C..	..T.T.....AACCC..GCTGGGT GCA..C..	TT..A..G..GTCC..TGGCACGTTAG..CTGGAGAGG.C
CoaV608	TGG	..C..	..T.T.....AATCC..GCTGGGT GCA..C..	TT..A..G..GTCC..TGGCACGTTAG..CTGGAGAGG.C
TBH-28	TGG	..T.	..T.T.....AACCC..GCTGGGT GCA..C..	TT..A..G..GTCC..TGGCACGTTAG..CTGGAGAGG.C
VR1265	TGG	..T.	..T.T.....AATCT..GCTGGGT GCA..C..	TT..A..G..GTCC..TGGCACGTTAG..CTGGAGAGG.C
CoaV353	..T.	..T.	..AATCTAGCTGAGT GCA..C..	TT..A..G..GTCC..TGGCACGTTAG..CTGGAGAGG.C
MVEV				
VR77	...	..T.C.	..T..ATTCTCC..CGGGTTG.A..	T.C..AG..AGT...TGCCAACAAATGGAGATG.A
AF161266	...	..T.C.	..T..ATTCTCC..CGGGTTG.A..	T.C..AG..AGT...TGCCAACAAATGGAGATG.A
M35172	...	..T.C.	..T..ATTCTCC..CGGGTTG.A..	T.C..AG..AGT...TGCCAACAAATGGAGATG.A
L48972	...	..T.C.	..T..ATTCTCC..CGGGTTG.A..	T.C..AG..AGT...TGCCAACAAATGGAGATG.A
L48973	...	..T.C.	..T..ATTCTCC..CGGGTTG.A..	T.C..AG..AGT...TGCCAACAAATGGAGATG.A
L48974	...	..T.C.	..T..ACTCTCT..CGGGTTG.A..	T.C..C..AG..AGT...TGCCAACAAATGGAGATG.A
L48975	...	..T.C.	..T..ACTCTCT..CGGGTTG.A..	T.C..AG..AGT...TGCCAACAAATGGAGATG.A
L48976	...	..T.C.	..T..ATTCTCC..CGGGTTG.A..	T..T..AG..AGT...TGC..AACAAATGGAGATG.A
Koutango virus				
L48980				C..T..G..T..G.A..C..T..G..T..TIC..

Figure 2

No:9	SEQ ID <i>2A</i>	(←) AACTGGGACCC TAGGGTAAAGGTAGGGTACAGGCTGAGGCCACAAAACACCAACAGCATATTGACACCTGGGA TAGACTYAGGAGA
AF196835	TGACT GAAGCTGTAGGTCAAGG	GGAAAGGACTAGAGGTAGGGTACAGGCTGAGGCCACAAAACACCAACAGCATATTGACACCTGGGA TAGACTYAGGAGA
AF260967	..G.	.....
AF260968	..G.	.....
AF260969	..G.	.....
AF481864	..G.	.....
M12294	..G.	.....
AF206518	..G.	.....
AF317203	..G.	.....
AF202541	..G.	.....
AF404757	..G.	.....
AF404753	..G.	.....
AF404754	..G.	.....
AF404755	..G.	.....
AF404756	..G.	.....
AF017254	..G.	.....
AF533540	..G.	.....
AY262283	..G.	.....
AY278441	..G.	.....
AY268132	..G.	.....
AY268133	..G.	.....
<u>Kunjin</u>		
AY274504	..G.	.....
AY274505	..G.	.....
L24512	..G.	.....
JEV		
<u>AB051292</u>	CCC . C .. G . AGG .. T ..	CAT
AF014160	CCC . C .. AGG .. T ..	CAT
AF014161	CCC . C .. AGG .. T ..	CAT
AF045551	CCC . C .. AGG .. T .. A ..	CAA
AF069076	CCC . C .. AGG .. T .. A ..	CAT
AF075723	CCC . C .. AGG .. T .. A ..	CAT
AF080251	CCC . C .. AGG .. T .. A ..	CAT
AF098735	CTC . C .. AGG .. T .. A ..	CAT
AF098736	CCC . C .. AGG .. T .. A ..	CAT
AF098737	CCC . C .. AGG .. T .. A ..	CAT
AF217620	.TC . C .. AGG .. A .. T ..	CAT
AF221499	CTC . C .. AGG .. T .. A ..	CAT
AF221500	CTC . C .. AGG .. T .. A ..	CAT
AF254452	CCC . C .. AGG .. T .. A ..	CAT
AF254453	CCC . C .. AGG .. T .. A ..	CAT
AF315119	CCC . C .. AGG .. T .. A ..	CAT

AF416457	CCC..C.....AGG..T.....A.....CAT	TTG..T.
AF486638	CCC..C.....AGG..T.....A.....CAT	TTG..T.
U14163	CCC..C.....AGG..T.....A.....CAT	TTG..T.
U15763	CCC..C.....AGG..T.....A.....CAT	TTG..T.
L48961	CTC..C.....AGG..T.....A.....CAT	TTG..T.
U47032	CCC..C.....AGG..T.....G.....A.....CAT	TTG..T.
M18370	CCC..C.....AGG..T.....A.....CAT	TTG..T.
M55506	CCC..C.....AGG..T.....A.....CAT	TTG..T.
L78128	CCC..C.....AGG..T.....A.....CAT	TTG..T.
D90195	CCC..C.....AGG..T.....A.....CAT	TTG..T.
D90194	CCC..C.....AGG..T.....A.....CAT	TTG..T.
AF311748	CCC..C.....AGG..T.....A.....CAT	TTG..T.
AY184212	CCCT..C.....AAG..T.....A.....CAT	TTG..T.
AY316157	CCC..C.....AGG..T.....A.....CAA	TTTG..T.
AF306514	CCC..C.....AGG..T.....A.....CAA	TTTG..T.
AF306515	CCC..C.....AGG..T.....A.....CAT	TTG..T.
AF306516	CCC..C.....AGGG..T.....A.....CAT	TTG..T.
AF306517	CCC..C.....AGG..T.....A.....CAT	TTG..T.
D00037	CCT..T..T.....T..T..AGGT..TT.....T..T.....T.A.....T.....CT	TTG..T.
M14933	CCT..T..T.....T..T..AGGT..TT.....T..T.....T.A.....T.....CT	TTG..T.
SLEV		
BFS1750-C	CCG..C.....AGAC..G.....A.....T.....G..TT.....G..A.....A.....A.	
1750-Std	CCG..C.....AGAC..G.....A.....C..GA	
TD6-4G-C	CCG..C.....AGAT..G.....A.....T.....G..TT.....G..A.....A.....A.	
TD6-4G-20	CCG..C.....AGAT..G.....A.....T.....G..TT.....G..A.....A.....A.	
CoaV750	CCG..C.....AGAT..G.....A.....C..G.	
L695121..05	CCG..C.....AGAC..G.....A.....T.....G..TT.....G..A.....A.....A.	
TNm771K-C	CCG..C.....AGAC..G.....A.....T.....G..TT.....G..A..N..A.....A.	
MSI-7-C	CCG..CA.....AGAC..G.....A.....T.....G..TT.....G..A.....A.....A.	
Kern217	CCG..CA.....AGAC..G.....A.....T.....G..TT.....G..A.....A.....A.	
CoaV608	CCG..CA.....AGAC..G.....A.....T.....G..TT.....G..A.....A.....A.	
TBH-28	CCG..C.....AGAC..G.....A.....T.....G..TT.....G..A.....A.....A.	
VR1265	CCG..C.....AGAC..G.....A.....T.....G..TC.....G..A.....A.....A.	
CoaV353	CCG..C.....AGAC..G.....A.....T.....G..TT.....G..A.....A.....A.	
MVEV		
VR77	.CG..C.....A..G..G..T.....C.....A.....ACT..T.....G..AT.....C.....AA.	
AF161266	.CG..C.....A..G..G..T.....C.....A.....ACT..T.....G..AT.....C.....AA.	
M35172	.CG..C.....A..G..G..T.....C.....A.....ACT..T.....G..AT.....C.....AA.	

Figure 3*



U15763	.GA..T.T.	T..	AAA	C..CA	A.	.TG.....AG.CCC..
L48961	.AGG..T.T.	A..	CATTGCC.TCA	C..CA	A.	.TG.....AG.CTC..
U47032	.AGG..T.T.	A..	CATTGCC.TCA	C..CA	A.	.TG.....AG.CCC..
C..	.AGG..T.G.	A..	CATTGCC.TCA	C..CA	A.	.TG.....AG.CCC..
M18370	.GA..T.T.	A..	CATTGCC.TCA	C..CA	AT	.TG.....AG.CCC..
C..	.AGG..T.	A..	CATTGCC.TCA	C..CA	A.	.TG.....AG.CCC..
M55506	.GA..T.T.	A..	CATTGCC.TCA	C..CA	A.	.TG.....AG.CCC..
C..	.AGG..T.	A..	CATTGCC.TCA	C..CA	A.	.TG.....AG.CCC..
L78128	.GA..T.T.	A..	CATTGCC.TCA	C..CA	A.	.TG.....AG.CCC..
C..	.AGG..T.	A..	CATTGCC.TCA	C..CA	A.	.TG.....AG.CCC..
D90195	.GA..T.T.	T..	AAA	C..CA	AT	.TG.....AG.CCC..
C..	.AGG..T.	A..	CATTGCC.TCA	C..CA	A.	.TG.....AG.CCC..
D90194	.GA..T.T.	T..	AAA	C..CA	A.	.TG.....AG.CCC..
C..	.AGG..T.	A..	CATTGCC.TCA	C..CA	A.	.TG.....AG.CCC..
AF311748	.GA..T.T.	T..	AAA	C..CA	A.	.TG.....AG.CCC..
C..	.AGG..T.	A..	CATTGCC.TCA	C..CA	A.	.TG.....AG.CCC..
AY184212	.GA..AT.T.	A..	CATTGCC.TCA	C..CA	A.	.TG.....AG.CCC..
C..	.AAG..T.	A..	CATTGCC.TCA	C..CA	A.	.TG.....AG.CCC..
AY316157	.TA..T.T.	A..	CATTGCC.TCA	C..CA	T.	.TG.....AG.CCC..
C..	.AGG..T.	A..	CATTGCC.TCA	C..CA	A.	.TG.....AG.CCC..
AF306514	.TTA..T.T.	A..	CATTGCC.TCA	C..AA	TT	.TG.....AG.CCC..
C..	.AGG..T.T.	A..	CATTGCC.TCA	C..AA	AA	.TG.....AG.CCC..
AF306515	.GA..T.T.	T..	AAA	C..AA	AA	.TG.....AG.CCC..
C..	.AGG..T.	A..	CATTGCC.TCA	C..AA	AA	.TG.....AG.CCC..
AF306516	.GA..T.T.	A..	CATTGCC.TCA	C..AA	AA	.TG.....AG.CCC..
C..	.AGG..T.	A..	CATTGCC.TCA	C..AA	AA	.TG.....AG.CCC..
AF306517	.GA..T.T.	T..	AAA	C..AA	AA	.TG.....AG.CCC..
St. Louis encephalitis virus						
BFS1750	.T...T	T..	CA	.CTTG	..	A.....AA.CCG..C
C..	.AGAC..G..	A..	T..GTT..CGG	C..	..	A.....AA.CCG..C
1750-Std	.T...T	T..	CA	.CTTG	..	A.....AA.CCG..C
TD6-4G	.T...T	T..	CA	.CTCG	..	A.....AA.CCG..C
C..	.AGAT..G..	A..	T..GTT..CGG	C..	..	A.....AA.CCG..C
Coav750	.T...T	T..	CA	.CTTG	..	A.....AA.CCG..C
L695121.05	T..T	T..	A..	.CTTG	..	A.....AA.CCG..C
C..	.AGAC..G..	A..	T..GTT..CGG	C..	..	A.....AA.CCG..C
TNW771K	.T...T	T..	A..	.CTTG	..	A.....AA.CCG..C
C..	.AGAC..G..	A..	T..GTT..CGG	C..	..	A.....AA.CCG..C
MSI-7	.T...T	T..	A..	.CTTG	..	A.....AA.CCG..C
C..	.AGAC..G..	A..	T..GTT..CGG	C..	..	A.....AA.CCG..C
Kem217	.T..T	T..	A..	.CTTG	..	A.....AA.CCG..C
C..	.AGAC..G..	A..	T..GTT..CGG	C..	..	A.....AA.CCG..C
Coav608	.T..T	T..	A..	.CTTG	..	A.....AA.CCG..C
A..	.AGAC..G..	A..	T..GTT..CGG	C..	..	A.....AA.CCG..C
TBH-28	T..T	T..	A..	.TTTG	..	A.....AA.CCG..C
C..	.AGAC..G..	A..	T..GTT..CGG	C..	..	A.....AA.CCG..C

AF310147 AT...GT.GCA.....T.....A.....T.CRAAAC AC..CGCAGCA GCGG.....A.ACC.GG
 G.....CCCCTG.TG.T.....A.....A.....CC..ATA.C.T. AT..CGTAGAC AT..CGCAGCA GCGG.....A.ACC.TG
 G.....CC.GG.G.....A.....T.....T.CCTAGAC AT..CGAAC AC..CGA.C.....CC..ATA.C.....T.CCGAAC GCGG.....A.ACC.GG
 AF309641 AT...GT.GCA.....T.....A.....T.CAAAC AC..CGAAC AC..CGAAC GCGG.....A.ACT.GG
 AF298808 AT...GT.GCA.....T.....A.....T.CAAAC AC..CGAAC AC..CGAAC GCGG.....A.ACT.GG
 G.....CCCCTG.TG.T.....A.....A.....CC..ATA.C.T. AT..CGAAC AC..CGAAC GCGG.....A.ACT.GG
 AF298807 AT...GT.GCA.....T.....A.....T.CAAAC AC..CGAAC AT..CGAAC GCGG.....A.ACT.GG
 G.....CCCCTG.TG.T.....A.....A.....CC..ATA.C.....T.CCAAC AC..CGAAC AT..CGAAC GCGG.....A.ACT.GG
 AF226687 AT...GT.GCA.....T.....A.....T.CCAAC AC..CGAAC AT..CGAAC GCGG.....A.ACT.GG
 G.....CC.TG.TG.T.....A.....A.....CC..ATA.C.....T.CCAAC AC..CGAAC AT..CGAAC GCGG.....A.ACT.GG
 AF226686 AT...GT.GCA.....T.....A.....T.CCAAC AC..CGAAC AT..CGAAC GCGG.....A.ACT.GG
 G.....CC.TG.TG.T.....A.....A.....CC..ACA.C.....T.CCAAC AC..CGAAC AT..CGAAC GCGG.....A.ACT.GG
 AF226685 AT...GT.GCA.....T.....A.....T.CCAAC AC..CGAAC AT..CGAAC GCGG.....A.ACT.GG
 G.....CC.TG.TG.T.....A.....A.....CC..ACA.C.....T.CCAAC AC..CGAAC AT..CGAAC GCGG.....A.ACT.GG
 AF180818 AT...GT.GCA.....T.....A.....T.CCAAC AC..CGAAC AT..CGAAC GCGG.....A.ACT.GG
 G.....CCCCTG.TG.T.....A.....A.....CC..ATA.C.T. AT..CGAAC AC..CGAAC GCGG.....A.ACT.GG
 AF180817 AT...GT.GCA.....T.....A.....T.CCAAC AC..CGAAC AT..CGAAC GCGG.....A.ACT.GG
 G.....CCCCTG.TG.T.....A.....A.....CC..ATA.C.....T.CCAAC AC..CGAAC AT..CGAAC GCGG.....A.ACT.GG
 AB074761 AT...GT.GCA.....T.....A.....T.CCAAC AC..CGAAC AT..CGAAC GCGG.....A.ACT.GG
 G.....CCCCTG.TG.T.....A.....A.....CC..ATA.T.T. AT..CGAAC AC..CGAAC GCGG.....A.ACT.GG
 AB074760 AT...GT.GCA.....T.....A.....T.CCAAC AC..CGAAC AT..CGAAC GCGG.....A.ACT.GG
 G.....CCCCTG.TG.T.....A.....A.....CC..ATA.C.T. AT..CGAAC AC..CGAAC GCGG.....A.ACT.GG
 VR344-3 AT...GT.GCA.....A.....T.CCAAC AC..CGAAC AT..CGAAC GCGG.....A.ACT.GG
 G.....CCCCTG.TG.T.....A.....A.....CC..ATA.C.T.
 Dengue virus type 2
 AF022434 AT...CGT.GT.....C.....T.CCTT.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 A.C.GA AT...CGT.GT.....C.....T.CCTC.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 AF022435 AT...CGT.GT.....C.....T.CCTC.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 A.C.A AT...CGT.GT.....C.....T.CCTC.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 AF022436 AT...CGT.GT.....C.....T.CCTC.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 A.C.A AT...CGT.GT.....C.....T.CCTC.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 AF022437 AT...CGT.GT.....C.....T.CCTT.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 A.C.A AT...CGT.GT.....C.....T.CCTT.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 AF022438 AT...CGT.GT.....C.....T.CCTT.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 A.C.A AT...CGT.GT.....C.....T.CCTT.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 AF022439 AT...CGT.GT.....C.....T.CCTC.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 A.C.A AT...CGT.GT.....C.....T.CCTC.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 AF022440 AT...CGT.GT.....C.....T.CCTC.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 A.C.A AT...CGT.GT.....C.....T.CCTC.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 AF022441 AT...CGT.GT.....C.....T.CCTC.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 A.C.A AT...CGT.GT.....C.....T.CCTT.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 AF038402 AT...CGT.GT.....C.....T.CCTT.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 A.C.A AT...CGT.GT.....C.....T.CCTT.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 AF038403 AT...CGT.GT.....C.....T.CCTT.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 A.C.A AT...CGT.GT.....C.....T.CCTT.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 AF100145 AT...CGT.GT.....C.....T.CCTT.AC A..TCGCAGAACATGGG.....AGGC..GA T.....TCTC.CT.....A.....CCCCGA
 A.T.A

AF309964 A.T.A.	AT..CGT.GT.....C.....T.CCTT.AC	A..TCGCAGCAACATAATGGG.....AGG..GA.T.....TCTCACT.....A.....CCCGA
AF309965 A.C.A.	AT..CGT.GT.....C.....T.CCTT.C	AC..TCGCAGCAACATAATGGG.....AGG..GA.T.....TCTCACT.....A.....CCCAA
AF359519 A.T.A.	AT..CGT.GT.....C.....T.CCTT.GC	A..TCGCAGCAACATAATGGG.....AGG..GA.T.....TCTCACT.....A.....CCCGA
AF489932 A.C.A.	AT..CGT.GT.....C.....T.CCTT.AC	A..TCGCAGCAACACAGGG.....AGG..GA.T.....TCTCACT.....A.....CCCAA
AJ487271 A.C.A.	AT..CGT.GT.....C.....T.CCTT.AC	A..TCGCAGCAACATAATGGG.....AGGC..GA.T.....TCTC.CT.....A.....CCCGA
AY037116 A.T.A.	AT..CGT.GT.....C.....T.CCTT.AC	A..TCGCAGCAACATAATGGG.....AGG..GA.T.....TCTCACT.A.....A.....CCCGA
M19197 A.C.A.	AT..CGT.GT.....C.....T.CCTT.AC	AG..TCGCAGCAACATAATGGG.....AGG..GA.T.....TCTCACT.....A.....CCCAA
M205558 A.C.A.	AT..CGT.GT.....C.....T.CCTT.AC	A..TCGCAGCAACACAGGG.....AGG..GA.T.....TCTCACT.....A.....CCCAA
M29095 A.C.A.	AT..CGT.GT.....C.....T.CCTT.AC	A..TCGCAGCAACATAATGGG.....AGG..GA.T.....TCTCACT.....A.....CCCAA
M84727 A.C.A.	AT..CGT.GT.....C.....T.CCTT.AC	A..TCGCAGCAACATAATGGG.....AGGC..GA.T.....TCTC.CT.....A.....CCCGA
M84728 A.C.A.	AT..CGT.GT.....C.....T.CCTT.AC	A..TCGCAGCAACATAATGGG.....AGGC..GA.T.....TCTC.CT.....A.....CCCGA
U61245 A.C.GA.	AT..CGT.GT.....C.....T.CCTT.AC	A..TCGCAGCAACATAATGGG.....AGGC..GA.T.....TCTC.CT.....A.....CCCGA
U61246 A.T.C.A.	AT..CGT.GT.....C.....T.CCTC.AC	A..TCGCAGCAACATAATGGG.....AGGC..GA.T.....TCTC.CT.....A.....CCCGA
U61247 A.C.A.	AT..CGT.GT.....C.....T.CCTC.AC	A..TCGCAGCAACATAATGGG.....AGGC..GA.T.....TCTC.CT.....A.....CCCGA
U61248 A.C.A.	AT..CGT.GT.....C.....T.CCTT.AC	A..TCGCAGCAACATAATGGG.....AGGC..GA.T.....TCTC.CT.....A.....CCCGA
U87411 A.C.A.	AT..CGT.GT.....C.....T.CCTT.AC	A..TCGCAGCAACATAATGGG.....AGGC..GA.T.....TCTC.CT.....A.....CCCGA
U87412 A.C.A.	AT..CGT.GT.....C.....T.CCTT.AC	A..TCGCAGCAACATAATGGG.....AGGC..GA.T.....TCTC.CT.....A.....CCCGA
VR345-2 A.C.A.	AT..CGT.GT.....C.....T.CCTT.AC	A..TCGCAGCAACATAATGGG.....AGGC..GA.T.....TCTC.CT.....A.....CCCGA
Dengue virus type 3 AF310149	AC..TGT.GCA.....C.....T.CCATGAC	AC..CGCAGCA GCGG.....GAG.ACTGAGG.....CC..CTTGCA.....A.....CC..A
M92130 A.C.	AC..TGT.GCA.....T.CCATGAC	AC..CGCAGCA GCGG.....GAG.ACTGAGG.....CC..CTTGCA.....TA.....CC..A
AF317645 A.C.	AC..TGT.GCA.....T.CCATGAC	AC..CGCAGCA GCGG.....GAG.ACTGAGG.....CC..CTTGCA.....TA.....CC..A
AZ099336 A.T.	AC..TGT.GCA.....C.....T.CCATGAC	AC..CGCAGCA GCGG.....GAG.ACTGAGG.....CC..CTTGCA.....A.....CC..A
AZ099337 A.T.	AC..TGT.GCA.....C.....T.CCATGAC	AC..CGCAGCA GCGG.....GAG.ACTGAGG.....CC..CTTGCA.....A.....CC..A
AZ099343 A.T..	AC..TGT.GCA.....C.....T.CCATGAC	AC..CGCAGCA GCGG.....GAG.ACTGAGG.....CC..CTTGCA.....A.....CC..A

AY099344 A.T..	AC..TGT.GCA.....C.....T.CCATGAC	AC..CGAGCA	GCGG.....GAG.ACTGAGG.....CC..CTTGCA,.....A.....CC..A,
AY099345 A.T..	AC..TGT.GCA.....C.....T.CCATGAC	AC..CGAGCA	GCGG.....GAG.ACTGAGG.....CC..CTTGCA,.....A.....CC..A,
AY099346 A.T..	AC..TGT.GCA.....C.....T.CCATGAC	AC..CGAGCA	GCGG.....GAG.ACTGAGG.....CC..CTTGCA,.....A.....CC..A,
AY099347 A.T..	AC..TGT.GCA.....C.....T.CCATGAC	AC..CGAGCA	GCGG.....GAG.ACTGAGG.....CC..CTTGCA,.....A.....CC..A,
VR1256-3 A.C..	AC..TGT.GCA.....T.....T.CCATGAC	AC..CGAGCA	GCGG.....GAG.ACTGAGG.....CC..CTTGCA,.....A.....CC..A,
VR1256-5 A.C..	AC..TGT.GCA.....T.....T.CCATGAC	AC..CGAGCA	GCGG.....GAG.ACTGAGG.....CC..CTTGCA,.....A.....CC..A,
Dengue virus type 4			
M14931 C..	GT..CAT.TT.....C.....T.CCATCTGACA...CGCAGCA	AA..GGG.....GAAGCC.GGAG.....CTC.T.T.....A.....CCCAA	
AF289029 C..	GT..CAT.TT.....C.....T.CCATCCACA...CGCAGCAAAA.GGG.....GAAGCC.GGAG.....CTC.T.T.....A.....CCCAA		
AF310150 C..	GT..CAT.TT.....T.CCATTA.CAAC...CGCAGCAC AA..GGG.....GAAG.C.GGAT.....CTC.T.T.....A.....CCCAA		
AF310152 C..	GT..CAT.TT.....T.CCATTA.CAAC...CGCAGCAC AA..GGG.....GAAG.C.GGAT.....CTC.T.T.....A.....CCCAA		
AF310153 C..	GT..CAT.TT.....C.....T.CCATACTGACA...CGCAGCA AA..GGG.....GAAGCC.GGAG.....CTC.T.T.....A.....CCCAA		
AF226573 C..	GT..CAT.TT.....C.....T.CCATACTGACA...CGCAGCA AA..GGG.....GAAGCC.GGAG.....CTC.T.T.....A.....CCCAA		
AF326825 C..	GT..CAT.TT.....C.....T.CCATACTGATA...CGCAGCA AA..GGG.....GAAGCC.GGAG.....CTC.T.T.....A.....CCCAA		
AF326826 C..	GT..CAT.TT.....C.....T.CCATACTGACA...CGCAGCA AA..GGG.....A		
AF326827 C..	GT..CAT.TT.....C.....T.CCATACTGACA...CGCAGCA AA..GGG.....A		
AF375822 C..	GT..CAT.TT.....C.....T.CCATACTGACA...CGCAGCA AA..GGG.....GAAGCC.GGAG.....CTC.T.T.....A.....CCCAA		
AY152039 C..	GT..CAT.TT.....C.....T.CCATACTGACA...CGCAGCA AA..GGG.....GAAGCC.GGAG.....CTC.T.T.....A.....CCCAA		
AY152043 C..	GT..CAT.TT.....C.....T.CCATACTGACA...CGCAGCA AA..GGG.....GAAGCC.GGAG.....CTC.T.T.....A.....CCCAA		
AY152047 C..	GT..CAT.TT.....C.....T.CCATACTGACA...CGCAGCA AA..GGG.....GAAGCC.GGAG.....CTC.T.T.....A.....CCCAA		
AY152051 C..	GT..CAT.TT.....C.....T.CCATACTGACA...CGCAGCA AA..GGG.....GAAGCC.GGAG.....CTC.T.T.....A.....CCCAA		
AY152055 C..	GT..CAT.TT.....C.....T.CCATACTGACA...CGCAGCA AA..GGG.....GAAGCC.GGAG.....CTC.T.T.....A.....CCCAA		
AY152059 C..	GT..CAT.TT.....C.....T.CCATACTGACA...CGCAGCA AA..GGG.....GAAGCC.GGAG.....CTC.T.T.....A.....CCCAA		
AY152063 C..	GT..CAT.TT.....C.....T.CCATACTGACA...CGCAGCA AA..GGG.....GAAGCC.GGAG.....CTC.T.T.....A.....CCCAA		
AY152067 C..	GT..CAT.TT.....C.....T.CCATACTGACA...CGCAGCA AA..GGG.....GAAGCC.GGAG.....CTC.T.T.....A.....CCCAA		
AY152071 C..	GT..CAT.TT.....C.....T.CCATACTGACA...CGCAGCA AA..GGG.....GAAGCC.GGAG.....CTC.T.T.....A.....CCCAA		

AY152171 GT..CAT.TT.....C.....T.CCATCACTGACA...CGCAGCA AA.GGG.....GAAGCC.GGAG.....CTTC.T.T.....A.....A.....CCCCAACAA
C..:
WR217-1 GT..CAT.TT.....C.....T.CCATCACTAACA...CGCAGCA AAAGGG...GAAGCC.GGAGS.....CTTC.T.T.....A.....A.....CCCCAACAA
C..:

*Two potential binding sites for SEQ ID NOS.: 28 & 70 can be found in this region. These are denoted by single underline for SEQ ID NO.: 28, and shading for SEQ ID NO.: 70.

KY1129 5' -GTAAGCC CTCAGAACCGTCTCGGAA-3'

WNV

AF317203
AF196835
AF260967
AF260968
AF260969
AF481864
M12294
AF206518
AF317203
AF202541
AF404757
AF404753
AF404754
AF404755
AF404756
AF017254
L48977
AF196536
AF196537
AF196538
AF196540
AF196541
AF196542
AF196543
AF458343C.....
AF458344
AF458347
AF458348
AF458350
AF458352C.....
AF458353
AF458355
AF458358
AF458360
AF458361
AF208017
AF196539
AF196535
AF458359
AF458357
AF458354
AF458349
AF458345
AF458346T.....T.....
AF533540

JEV

AB051292 .A.....
AF014160 .A.....
AF014161 .A.....
AF045551 .A.....
AF069076 .A.....
AF075723 .A.....
AF080251 .A.....G.....
AF098735 .A.....
AF098736 .A.....
AF098737 .A.....
AF217620 .A.....
AF221499 .A.....
AF221500 .A.....
AF254452 .A.....
AF254453 .A.....
AF315119 .A.....T.....
AF416457 .A.....
AF486638 .A.....
U14163 .A.....
U15763 .A.....

Fig. 4A

KY1129 5'-GTAAGCC CTCAGAACCGTCTCGAA-3'

JEV cont.

L48961 .A.....
U47032 .A.....
M18370 .A.....
M55506 .A.....
L78128 .A.....
D90195 .A.....
D90194 .A.....
AF311748 .A.....
AF092550 .A.....
AF092552 .A.....
AF092553 .A.....
AF139531 .A.....
AF148900 .A.....
AF148902 .A.....
AF218068 .A.....
AF289816 .A.....
AF318291 .A.....
L48967 .A.....
L48968 .A..C..
L54067 .A.....
L54068 .A.....
L54069 .A.....
L54070 .A.....
L54071 .A.....
L54072 .A.....
L54122 .A.....
L54123 .A.....
AF306514 .A.....
AF306515 .A.....T.....
AF306516 .A.....T.....
AF306517 .A.....A.....T.....

MVEV

AF161266 .A.....T.C.....
M35172 .A.....T.C.....
L48972 .A.....T.C.....
L48973 .A.....T.C.....
L48974 .A.....T.C...C.....
L48975 .A.....T.C.....
L48976 .A.....T.C.....T.....

KUNJIN

AF458351G.
AF458356
AF297840C.....
AF297841
AF297842
AF297843
AF297844
AF297845
AF297846C.....
AF297847C.....
AF297848
AF297849
AF297850C.....
AF297851C.....GT
AF297852C.....
AF297853C.....
AF297854
AF297855
AF297856
AF297857G.....
AF297858
AF297859
L48978
L49311
D00246
L48979
L24512

KOUTANGO

L48980

Fig. 4B

KY1130 5' -TCCTAGTCTA TCCCAGGTGTCAA-3'

WNV

AF196835
AF260967
AF260968
AF260969
AF481864
M12294 C.....
AF206518
AF317203
AF202541
AF404757
AF404753
AF404754
AF404755
AF404756
AF017254A.....
Kunjin >
L24512

JEV

AB051292 ...C.....T.....
AF014160 ...C.....T.....
AF014161 ...C.....T.....
AF045551 ...C.C...T.....
AF069076 ...C.....T.....
AF075723 ...C.....T.....
AF080251 ...C.....T.....
AF098735 ...C.....T.....
AF098736 ...C.....T.....
AF098737 ...G.....TCT.....
AF217620 ...C.....T.....
AF221499 ...C.....T.....
AF221500 ...C.....T.....
AF254452 ...C.....T.....
AF254453 ...C.....T.....
AF315119 ...C.....T.....
AF416457 ...C.....T.....
AF486638 ...C...A..T.....
U14163 ...C.....T.....
U15763 ...C.....T.....
L48961 ...C.....T.....
U47032T.....
M18370 ...C.....T.....
M55506 ...C.....T.....
L78128 ...C.....T.....
D90195 ...C.....T.....
D90194 ...C.....T.....
AF311748 ...C.....T.....
AF306514 ...C.C...T.....
AF306515 ...C.....T.....
AF306516 ...C.....T.....
AF306517 ...C.C...T.....
D00037 ...C.....T.....
M14933 ...C.....T.....

MVEV

AF161266TT.....
M35172TT.....

Fig. 4C

KY1131 5'-GGACTAGAAGGTTAGAGAGAGACCCCGGG-3'

WNV

AF196835
AF260967
AF260968
AF260969
AF481864
M12294T
AF206518
AF317203
AF202541
AF404757
AF404753
AF404754
AF404755
AF404756
AF017254
Kunjin AF208017T.....A..T
L24512T

JEV

AB051292T..
AF014160T..
AF014161T..
AF045551T..
AF069076T..
AF075723T..
AF080251T..
AF098735T..
AF098736T..
AF098737T..
AF217620T..
AF221499T..
AF221500T..
AF254452T..
AF254453T..
AF315119T..
AF416457T..
AF486638T..
U14163T..
U15763T..
L48961T..
L24512T..
U47032T..
M18370T..
M55506T..
L78128T..
D90195T..
D90194T..
AF311748T..
AF306514T..
AF306515T..
AF306516T..
AF306517T..

MVEV

AF161266A.TC
M35172A.TC

Fig. 4D.